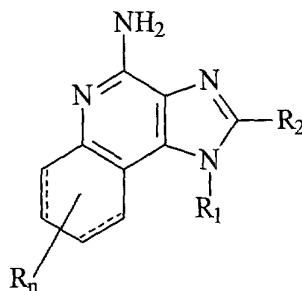


WHAT IS CLAIMED IS

1. A pharmaceutical composition comprising a therapeutically effective amount of a compound of the formula (I):

5



(I)

wherein

R<sub>1</sub> is -C<sub>2-4</sub> alkyl-NR<sub>3</sub>-CO-R<sub>4</sub> wherein R<sub>4</sub> is aryl, substituted aryl, heteroaryl, substituted heteroaryl, or alkyl;

10

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

15

-(substituted aryl);

-heteroaryl;

-(substituted heteroaryl);

-heterocyclyl;

-(substituted heterocyclyl);

20

-alkyl-O-aryl;

-alkyl -O-alkyl;

-alkyl-O-alkenyl; and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

25

-OH;

-halogen;  
 -N(R<sub>3</sub>)<sub>2</sub>;  
 -CO-N(R<sub>3</sub>)<sub>2</sub>;  
 -CO-C<sub>1-10</sub> alkyl;  
 5 -CO-O-C<sub>1-10</sub> alkyl;  
 -N<sub>3</sub>;  
 -aryl;  
 -(substituted aryl);  
 -heteroaryl;  
 10 -(substituted heteroaryl);  
 -heterocyclyl;  
 -(substituted heterocyclyl);  
 -CO-aryl; and  
 -CO-heteroaryl;

15 each R<sub>3</sub> is independently selected from the group consisting of hydrogen; C<sub>1-10</sub> alkyl-heteroaryl; C<sub>1-10</sub> alkyl-(substituted heteroaryl); C<sub>1-10</sub> alkyl-aryl; C<sub>1-10</sub> alkyl-(substituted aryl) and C<sub>1-10</sub> alkyl;

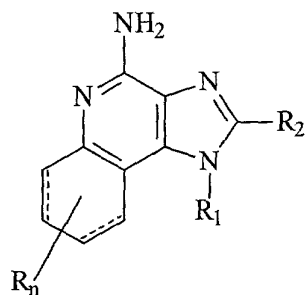
n is 0 to 4;

20 and each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, halogen and trifluoromethyl, or a pharmaceutically acceptable salt thereof, in combination with a pharmaceutically acceptable carrier.

2. The composition of claim 1 wherein R<sub>3</sub> is hydrogen.

25 3. The composition of claim 1 wherein R<sub>2</sub> is selected from the group consisting of hydrogen; C<sub>1-4</sub> alkyl; and C<sub>1-4</sub> alkyl-O-C<sub>1-4</sub> alkyl.

4. A pharmaceutical composition comprising a therapeutically effective amount of a compound of the formula (Ib):



(Ib)

5 wherein

$R_1$  is  $-C_{2-4}$  alkyl- $NR_3$ -CO- $R_4$  wherein  $R_4$  is heterocyclyl or substituted heterocyclyl;

$R_2$  is selected from the group consisting of:

- 10 -hydrogen;
- alkyl;
- alkenyl;
- aryl;
- 15 -(substituted aryl);
- heteroaryl;
- (substituted heteroaryl);
- heterocyclyl;
- (substituted heterocyclyl);
- alkyl-O-aryl;
- 20 -alkyl -O-alkyl;
- alkyl-O-alkenyl; and
- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
- 25 -OH;
- halogen;

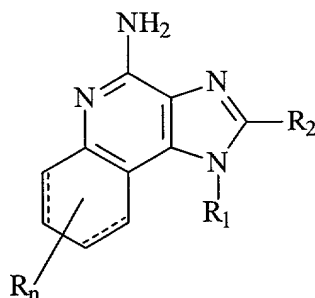
-N(R<sub>3</sub>)<sub>2</sub>;  
 -CO-N(R<sub>3</sub>)<sub>2</sub>;  
 -CO-C<sub>1-10</sub> alkyl;  
 -CO-O-C<sub>1-10</sub> alkyl;  
 -N<sub>3</sub>;  
 -aryl;  
 -(substituted aryl);  
 -heteroaryl;  
 -(substituted heteroaryl);  
 -heterocyclyl;  
 -(substituted heterocyclyl);  
 -CO-aryl; and  
 -CO-heteroaryl;

each R<sub>3</sub> is independently selected from the group consisting of hydrogen; C<sub>1-10</sub> alkyl-heteroaryl; C<sub>1-10</sub> alkyl-(substituted heteroaryl); C<sub>1-10</sub> alkyl-aryl; C<sub>1-10</sub> alkyl-(substituted aryl) and C<sub>1-10</sub> alkyl;

n is 0 to 4;

and each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, halogen and trifluoromethyl, or a pharmaceutically acceptable salt thereof, in combination with a pharmaceutically acceptable carrier.

5. A compound of the formula (Id):



(Id)

wherein

$R_1$  is  $-C_{2-4}$  alkyl- $NR_3$ -CO- $R_4$  wherein  $R_4$  is heteroaryl or substituted heteroaryl;

$R_2$  is selected from the group consisting of:

- 5                    -hydrogen;  
                    -alkyl;  
                    -alkenyl;  
                    -aryl;  
                    -(substituted aryl);  
                    -heteroaryl;  
10                   -(substituted heteroaryl);  
                    -heterocyclyl;  
                    -(substituted heterocyclyl);  
                    -alkyl-O-aryl;  
                    -alkyl -O-alkyl;  
15                   -alkyl-O-alkenyl; and  
                    -alkyl or alkenyl substituted by one or more substituents selected from the  
group consisting of:  
                    -OH;  
                    -halogen;  
20                   - $N(R_3)_2$ ;  
                    -CO- $N(R_3)_2$ ;  
                    -CO- $C_{1-10}$  alkyl;  
                    -CO-O- $C_{1-10}$  alkyl;  
                    - $N_3$ ;  
25                   -aryl;  
                    -(substituted aryl);  
                    -heteroaryl;  
                    -(substituted heteroaryl);  
                    -heterocyclyl;  
30                   -(substituted heterocyclyl);  
                    -CO-aryl; and  
                    -CO-heteroaryl;

each **R**<sub>3</sub> is independently selected from the group consisting of hydrogen; C<sub>1-10</sub> alkyl-heteroaryl; C<sub>1-10</sub> alkyl-(substituted heteroaryl); C<sub>1-10</sub> alkyl-aryl; C<sub>1-10</sub> alkyl-(substituted aryl) and C<sub>1-10</sub> alkyl;

**n** is 0 to 4;

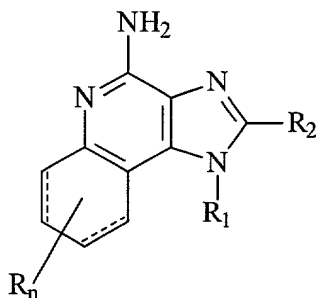
and each **R** present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, halogen and trifluoromethyl, or a pharmaceutically acceptable salt thereof.

6. A compound of claim 5 wherein **n** is 0.

7. A compound of claim 5 wherein **R**<sub>2</sub> is selected from the group consisting of hydrogen, C<sub>1-4</sub> alkyl, and C<sub>1-4</sub> alkyl-O-C<sub>1-4</sub> alkyl.

8. A compound of claim 5 wherein **R**<sub>3</sub> is hydrogen.

9. A compound of the formula (Ie):



(Ie)

wherein

**R**<sub>1</sub> is -C<sub>2-4</sub> alkyl-NR<sub>3</sub>-CO-C<sub>1-8</sub> alkyl;

**R**<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-(substituted aryl);  
 -heteroaryl;  
 -(substituted heteroaryl);  
 -heterocyclyl;  
 5 -(substituted heterocyclyl);  
 -alkyl-O-aryl;  
 -alkyl -O-alkyl;  
 -alkyl-O-alkenyl; and  
 -alkyl or alkenyl substituted by one or more substituents selected from the

10 group consisting of:

-OH;  
 -halogen;  
 -N(R<sub>3</sub>)<sub>2</sub>;  
 -CO-N(R<sub>3</sub>)<sub>2</sub>;  
 15 -CO-C<sub>1-10</sub> alkyl;  
 -N<sub>3</sub>;  
 -aryl;  
 -(substituted aryl);  
 -heteroaryl;  
 20 -(substituted heteroaryl);  
 -heterocyclyl;  
 -(substituted heterocyclyl);  
 -CO-aryl; and  
 -CO-heteroaryl;

25 each **R**<sub>3</sub> is independently selected from the group consisting of hydrogen; C<sub>1-10</sub> alkyl-heteroaryl; C<sub>1-10</sub> alkyl-(substituted heteroaryl); C<sub>1-10</sub> alkyl-aryl; C<sub>1-10</sub> alkyl-(substituted aryl) and C<sub>1-10</sub> alkyl;

**n** is 0 to 4;

and each **R** present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, halogen and trifluoromethyl, or a pharmaceutically acceptable salt thereof.

10. A compound of claim 9 wherein n is 0.

11. A compound of claim 9 wherein R<sub>2</sub> is selected from the group consisting of hydrogen, C<sub>1-4</sub> alkyl, and C<sub>1-4</sub> alkyl-O-C<sub>1-4</sub> alkyl.

5

12. A compound of claim 9 wherein R<sub>3</sub> is hydrogen.

13. A pharmaceutical composition comprising a therapeutically effective amount of a compound selected from the group consisting of:

10 (2*S*,3*S*)-*N*-{4-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]butyl}-1-methyl-5-oxo-2-pyridin-3-ylpyrrolidine-3-carboxamide;

*N*-{4-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]butyl}-1-[(4-*tert*-butylphenyl)sulfonyl]-L-prolinamide;

*N*-[8-(4-amino-2-butyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)octyl]benzamide;

15 *N*-{8-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]octyl}benzamide;

*N*-[3-(4-amino-2-butyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)propyl]benzamide;

*N*-{3-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]-2,2-dimethylpropyl}benzamide;

*N*-[8-(4-amino-1*H*-imidazo[4,5-*c*]quinolin-1-yl)octyl]benzamide;

20 *N*-{3-[4-amino-2-(3-phenoxypropyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]propyl}-4-bromobenzamide;

*N*-{3-[4-amino-2-(3-phenoxypropyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]propyl}benzamide;

*N*-{3-[4-amino-2-(2-methoxyethyl)-6,7,8,9-tetrahydro-1*H*-imidazo[4,5-*c*]quinolin-1-yl]propyl}benzamide; and

25 *N*-{3-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]propyl}benzamide; or a pharmaceutically acceptable salt thereof in combination with a pharmaceutically acceptable carrier.

14. A compound selected from the group consisting of:

30 *N*-{4-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]butyl}isoquinoline-3-carboxamide;



*N*-{4-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]butyl}quinoline-3-carboxamide;

*N*-{4-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]butyl}quinoxaline-2-carboxamide;

5 *N*-[3-(4-amino-2-butyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)propyl]isoquinoline-3-carboxamide;

*N*-{3-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]propyl}isoquinoline-3-carboxamide;

*N*-[4-(4-amino-2-ethyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)butyl]cyclopentanecarboxamide;

10 *N*-[4-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)butyl]cyclohexanecarboxamide;

*N*-[4-(4-amino-2-ethyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)butyl]-2-methylpropanamide;

*N*-[4-(4-amino-2-ethyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)butyl]butanamide;

*N*-[4-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)butyl]cyclopentanecarboxamide;

*N*-[4-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)butyl]-2-methylpropanamide;

15 *N*-[4-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)butyl]butanamide;

*N*-[4-(4-amino-2-ethyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)butyl]cyclohexanecarboxamide;

*N*-[3-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)propyl]cyclohexanecarboxamide;

*N*-[3-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)propyl]cyclopentanecarboxamide;

20 *N*-[3-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)propyl]-2-methylpropanamide;

*N*-[3-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)propyl]butanamide; and

*N*-{2-[4-amino-2-(ethoxymethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]-1,1-dimethylethyl}-2-ethoxyacetamide;

25 or a pharmaceutically acceptable salt thereof.

15. A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 5 in combination with a pharmaceutically acceptable carrier.

30 16. A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 9 in combination with a pharmaceutically acceptable carrier.

17 A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 14 in combination with a pharmaceutically acceptable carrier.

18. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a composition of claim 1 to the animal.

5

19. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a composition of claim 4 to the animal.

10

20. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a composition of claim 13 to the animal.

21. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a composition of claim 15 to the animal.

15

22. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a composition of claim 16 to the animal.

20

23. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a composition of claim 17 to the animal.

25